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A NEW SPECIES OF *CINARA* FROM MICHIGAN (APHIDAE)

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The material from which this new species was described was sent me by Miss Louise M. Russell of the Entomology Research Division, United States Department of Agriculture.

Cinara kocheta n. sp.

Alate viviparous female.

Length from vertex to end of cauda varying from 2.55-2.85mm. Color in life not recorded, as represented by cleared mounted specimens as follows: Head and thorax very dark dusky brown, both in life most likely black. Abdomen light dusky brown, cornicles much darker. First and second antennal segments concolorous with head, or slightly darker, third, fourth and fifth segments with basal regions dusky, remainder of segments much darker, sixth segment uniform dark brown. Median suture of head black. All femora very dark brown. Pro and mesothoracic tibiae with short region near base brown, this followed by a pale region, which shades into brown at the apex. Metathoracic tibiae almost uniform deep brownish black, but sometimes with just a suggestion of a lighter area on basal half. Tarsal segments concolorous with ends of tibiae.

Head and thorax.—Length of antennal segments as follows: III .52-.55mm., IV .21-.27mm., V .22-.27mm, VI .12 + .05mm. Secondary sensoria distributed as follows: III 2-4, IV 0-1, V 1-2. The secondary sensoria on the third segment are arranged in a straight row, they show much variation in size and position, the primary sensorium on this segment is much like the secondary. The remaining antennal segments have large primary sensoria with wide rims. The sixth antennal segment is weakly imbricated, the marginal sensoria on this segment are of two sizes and are grouped. The hair on the antennae are rather sparse, on the third segment they are about .06mm. in length, set at an angle of about forty five degrees, they are more numerous on the anterior margin. Ocular tubercles well developed. Hairs on vertex and dorsum of head numerous, fine, sharp pointed, about .06mm. in length. Rostrum in one case almost as long as the body, as a rule reaching the cornicles. Hairs on lateral lobes of thorax covering median half of lobe, long and fine, posterior median lobe of thorax with hairs on central portion of lobe. Media twice forked, second fork closer to mar-

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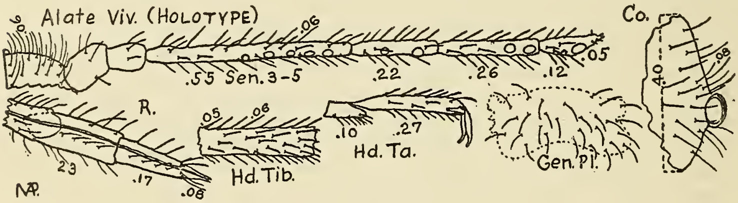
gin of wing than to first. Last three segments of the rostrum with the following lengths: .23, .17, .08mm. Prothoracic femora varying in length from .97-1.05mm., tibiae of same varying from 1.35-1.65mm. Metathoracic femora varying from 1.27-1.35mm., tibiae of same varying from 2.47-2.85mm. Length of first and second metatarsal segments .10 and .27mm. Hairs on femora fine, upstanding, hairs on anterior margin of metathoracic femora finer but about as long as the hairs on the anterior margin of the third antennal segment. Hairs on metathoracic tibiae rather spine like, sharp pointed, set at an angle of about forty five degrees, similar on both margins as to character but more numerous on the inner margin. On the outer margin the hairs vary in length from .05-.06mm. being considerably shorter than the width of segment. First metatarsal segment with about nine hairs on the ventral surface. Second metatarsal segment with the hairs on the dorsal and ventral surfaces about the same in length, but with the hairs on the ventral surface more numerous.

Abdomen.—Dorsum of abdomen with extremely few fine rather short hairs, hairs on the ventral surface abundant. Width of cornicles varying from .40-.52mm. The cornicles are rather shallow, with the outer margins irregular but not deeply indented in any one place. Opening of cornicles closer to posterior margin than to anterior. Hairs on cornicles sparse, hardly more numerous on constricted area than on margin. Pigmented areas anterior to cauda variable, sometimes united, sometimes divided, sometimes joined by teeth on the inner margins, always rather narrow, with a single row of hairs along the posterior margin. Hairs on cauda confined to posterior margin, both cauda and anal plate with setulose surface. Genital plate concave on posterior surface, with hairs over most of surface.



Cinara kocheta n.sp.

This species is closely allied to *C. banksiana* P. & T. but differs from that species as follows: more numerous, finer and sharper hairs on the head. Smaller more brown cornicles, shorter hairs on the tibiae, more numerous hairs on the first and second antennal segments, fewer hairs on the dorsum of the abdomen, and the imbrications on the sixth antennal segment being more poorly developed.

From *Cinara nigra* (Wilson), this species would appear to differ as follows: much larger base of cornicle, in *nigra* Wilson records the base of cornicle as being much smaller than the base of the cornicle in the apterous viviparous female. Prof. Palmer's drawings of these structures from the type slide indicates the base of the cornicles in the alate of *nigra* as .19mm. and in the case of the apterous viviparous female as .33mm. The antennal segments of *C. kocheta* are longer, and the secondary sensoria fewer than in *C. nigra* (Wilson).

Host, *Pinus banksiana* (Jack pine) Iron River, Michigan July 6, 1951. Collected by D. M. Benjamin. Collected on terminal branches. Holotype alate viviparous female, deposited in the United States National Museum.